



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/754,326	01/09/2004	Jeffrey W. Carr	CARR-01003US1 SRM/DTX	7474
23910	7590	05/20/2005	EXAMINER	
FLIESLER MEYER, LLP FOUR EMBARCADERO CENTER SUITE 400 SAN FRANCISCO, CA 94111			PASCHALL, MARK H	
			ART UNIT	PAPER NUMBER
			3742	

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

517

Office Action Summary	Application No.	Applicant(s)	
	10/754,326	CARR, JEFFREY W.	
	Examiner	Art Unit	
	Mark H Paschall	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,9-12,16,17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selitser in view of Bejat et al.

Note that Selitser teaches an inductive plasma torch which functions at atmospheric pressure and produces a plasma which cleans a work surface, inclusive of translating means for relative movement between the work and the torch. Note that reactive gases are used to effect surface modification. Note that the gas feeds comprise means for injecting reactive precursors into the flame. Though the term plasma flame is as conventional term in the art, the patent to Bejat et al has been applied for evidencing that a plasma flow is termed a "plasma" flame. In view of this teaching it is obvious that the 3000-70000 degree Kelvin temperatures produced in the Selitser system plasma, does comprise a flame, as claimed.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Selitser in view of Bejat et al above, further in view of Trassy. Selitser as modified, teaches the claimed torch for generating a flam from whatever gases are intended to use in the

Art Unit: 3742

torch. The patent to Trassy is applied for clearly evidencing that hydrogen and oxygen are conventional flame components and in view of this teaching it would have been obvious to adapt the Selitser torch to burn these gases, such choice depending on the intended use of the device and the material being processed.

Claims 5-7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selitser in view of Bejat et al and DePetrillo et al. in view of DePeterillo et al teaching that an inductive plasma can generate radicals for surface modification, it would have been obvious to modify the Selitser as modified torch to generate free radicals for surface modification, if the intended use of the device necessitated the same. Note that the reactive etching in Selitser can also be construed as free radical production.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Selitser in view of Bejat et al above, in view of Wagner.

The claims call for use of a flame suppressor on the device. In view of Wagner teaching that it is conventional to use the same in a fluidized bed environment and that use of the same leads to a safer device, it would have been obvious to modify the Selitser patent to include a flame suppressor so that operator safety would be enhanced.

Art Unit: 3742

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selitser in view of Bejat et al. The claims call for an inert torch tip, a rotatable work support and use of multiple nozzles. These are considered obvious choices for the artisan, considering the widespread use of the same in plasma processing and it would have been obvious to modify the Selitser as modified by Bejat above system with the same, this choice dependent on the gases used, the shape of the work and the processing speed required.

Response to Arguments

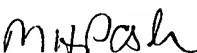
Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection. The patent to Bejat et al has been applied for teaching that a plasma torch does comprise a flame torch and the Note column2, lines 57-70 in Bejat et al which set forth that the torch can be supplemented with gases to increase the temperature of the "flame", without adding reactive elements, or with hydrogen of the flame is to form a reducing atmosphere. Depending on the gases chosen the flame would be self-sustaining and the use of electrical power to bias the torch just insures uniformity in the flame. Applicant's should note that the claims are silent as to the nature of the flame torch used and ;the nature of the gases or fuels used to effect t the heat. Selitser is noted for teaching that plasma torches commonly produce much higher temperatures than those required for electrical device processing.

Art Unit: 3742

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark H Paschall whose telephone number is 703 308-1642. The examiner can normally be reached on 7am - 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (703) 305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Mark H Paschall
Primary Examiner
Art Unit 3742

mp